

(test). These counts, however, after the 12 week storage period, decreased to 7 or less mold colonies/g.

The yeasts (2) exhibited counts of 7 colonies/g or less after 12 weeks of storage.

C. Conclusions: After 12 weeks of storage, Burley strip sprayed with CTB (test) did not show any adverse microbial effects when compared to the strip cased with RBS (control). An increase in bacterial numbers was observed over the same time period for the Burley feedstock. The significance, if any, of the increase in the number of mold organisms in both the test and control strips after 2 weeks of storage has yet to be determined.

C.D. Plans: A memo detailing the results is in press.

E. References:

1. PM Notebook #8285, D. Turner; 8522, N. Thompson; 8181, D. Chadick; 8294, E. Crockett.
2. PM Notebook #8505, O. Mallory.

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PROJECT NUMBER: 1902
PROJECT TITLE: Tobacco Microbiology
PROJECT LEADER: D. J. Ayers
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I. PROJECT ART BLEND SAMPLES

- A. Objective: To determine the potential for bacterial and fungal growth in the ART blend samples (OV = 23%) during storage at 108°F and to note any chemical changes that may occur.
- B. Results: MC Primary facility samples from the beginning, middle, and end of the silo dump were collected. In addition to a time zero sample, samples from these three collections were placed in containers and tested (1) after 4, 8, 12, 16, 24, and 48 hours of storage (108°F). Preliminary studies suggest that there was an increase in bacterial counts after 8 hours of storage in samples taken at the beginning and at the end of the dump; however, this increase was not observed in the middle of the dump samples.

The data for the mold/yeast samples are not available due to the longer incubation times needed to quantitate these organisms.

No chemical changes have been noted in selected samples from the preliminary study.

- C. Conclusions: None at this time.
- D. Plans: This work is ongoing.
- E. References:

1. Crockett, E. A., Special Report #86-055. Memo to J. Whidby; 1986 February 20.

II. MICROBIAL ANALYSES OF STRIP CASED WITH REGULAR BURLEY SPRAY AND RSB WITH THE ADDITION OF CLASS TOBACCO

- A. Objective: To microbially analyze Burley strip that was uncased (feed) and cased with either RBS (control) or CTB (test). These samples were obtained from a trial at the Louisville MC on 5/1/87.
- B. Results: After 12 weeks of storage there were no major differences in bacterial counts (1) between the control strip with the RBS vs the test strip with the CTB application. The control decreased by a factor of 4 and the test by a factor of 10. However, the feed exhibited an increase in bacteria by a factor of 10.

The mold counts (2) after 2 weeks of incubation increased from 2 to 35 (feed), 0 to 102 (control), and 3 to 168 mold colonies/g